



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,730	01/22/2001	Claudio L.K. Lins	6289	1305

22922 7590 10/06/2005

REINHART BOERNER VAN DEUREN S.C.  
ATTN: LINDA GABRIEL, DOCKET COORDINATOR  
1000 NORTH WATER STREET  
SUITE 2100  
MILWAUKEE, WI 53202

EXAMINER

CHORBAJI, MONZER R

ART UNIT PAPER NUMBER

1744

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/766,730

Applicant(s)

LINS, CLAUDIO L.K.

Examiner

MONZER R. CHORBAJI

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

**This final office action is in response to the amendment received on 07/12/2005**

#### ***Drawings***

1. The drawings are objected to because figure 4 in the drawings submitted on 01/22/2001 includes handwritten labels. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).
4. Claims 13, 15 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Coffee (U.S.P.N. 6,880,554).

With respect to claim 13, the Coffee (554) reference discloses a system for electrostatic delivery of an antimicrobial material (figure 1) that includes the following: a disinfectant composition that is electrostatically dispensable (figure 1) including a glycol component (col.7, lines 64-65), an alcohol component (col.7, lines 64-65) and a conductivity control component (col.3, lines 51-52), an electrostatic dispensing apparatus (figure 1) that includes a charging element for charging the composition (figure 1:9), a voltage source (figure 1:53), a liquid reservoir (figure 1:13) and only one dispenser (figure 1:100) for dispensing the charged composition at a rate (col.1, lines 66-67 and col.2, lines 1-4).

With respect to claim 15, the Coffee (554) reference discloses that the glycol component is present at solute concentrations in the alcohol component (col.7, lines 64-65).

With respect to claim 17, the Coffee (554) reference uses a conductivity control component (col.3, lines 51-52) having a conductivity of about 0.01 microsiemens per centimeter to about 1.0 microsiemens per centimeter (col.3, lines 34-36). Note that the Coffee (554) reference discloses the unit of resistivity as ohmmeter, which is the same as ohm or ohms. The units of ohm and microsiemens are related through reciprocal relation. For example, 0.1 microsiemens/cm = 10 mega ohm-cm, which falls within the range disclosed in the reference.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 1744

7. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coffee (U.S.P.N. 6,105,877) in view of Rabe et al (U.S.P.N. 6,531,142).

With respect to claim 1, the Coffee (877) reference discloses a non-aqueous (col. 9, lines 61-63) electrostatically dispensable disinfectant composition (figure 9:20, 23 and 24) that includes an alcohol solvent component and a glycol solute component (col. 9, lines 61-63). Also, the Coffee (877) reference teaches adding perfumes (col.4, lines 49-50), which is equivalent to a conductivity control component, but fails to disclose specific types of perfumes. The Rabe reference, which is in the art of electrostatic dispensing, teaches that one of the known topical ingredient classes are essential oils that can be included in the composition (col.9, lines 26-27). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the composition of the Coffee (877) reference by including essential oils as taught by the Rabe reference in order to provide an esthetic benefit to the composition (col.8, lines 52-55).

With respect to claim 2, the Coffee (877) reference uses ethanol as the alcohol solvent (col.9, line 62).

With respect to claim 3, the Coffee (877) reference uses a conductivity control component (col.4, lines 49-50) having a conductivity of about 0.01 microsiemens per centimeter to about 1.0 microsiemens per centimeter (col.4, lines 32-33). Note that the Coffee (877) reference discloses the unit of resistivity as ohmmeter, which is the same as ohm or ohms. The units of ohm and microsiemens are related through reciprocal

Art Unit: 1744

relation. For example, 0.1 microsiemens/cm = 10 mega ohm-cm, which falls within the range disclosed in the reference.

8. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coffee (U.S.P.N. 6,105,877) in view of Rabe et al (U.S.P.N. 6,531,142) as applied to claims 3 and 1 and further in view of Schroeder et al (U.S.P.N. 5,591,395).

With respect to claims 4-8, the Coffee (877) reference teaches the following: a conductivity control component (col.4, lines 49-50), 80% ethanol such that if ethanol is volume percent not weight percent then 80% would still fall within the range of claim 7 (col.9, line 62) and a viscosity range of 1 to 500 centipoise (col.4, lines 30-31) for the composition provided by the amount of ethanol present. However, both the coffee (877) reference and the Rabe reference fail to disclose weight percent value for the conductivity control component and the use of triethylene glycol. The Schroeder reference, which is in the art of disinfecting air, teaches the use of control conductivity component (i.e., fragrance) at 10% weight (example 1) and the use of 10% weight of triethylene glycol (example 2). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to specifically choose triethylene glycol since it is one of the preferred glycol materials named by the Schroeder reference (col.1, lines 66-67) for its ability to readily generate particles, which form an aerosol suspension in the air at temperatures, which can safely be used in a small consumer appliance (col.1, lines 62-66).

Art Unit: 1744

9. Claims 9-10 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coffee (U.S.P.N. 6,105,877) in view of Schroeder et al (U.S.P.N. 5,591,395) Rabe et al (U.S.P.N. 6,531,142) and Bloch (U.S.P.N. 4,071,616).

With respect to claim 9, the Coffee (877) reference teaches a substantially non-aqueous electrostatically dispensable (20, 23 and 24) disinfectant composition (col.9, lines 62-63) that includes a glycol component with intrinsic initial viscosity and initial conductivity, an alcohol component and a conductivity component (col.4, lines 49-50) having a resistivity range, that falls within the range for the conductivity recited (see explanation with respect to claim 3). Further, the Coffee (877) reference discloses a delivery rate range from 0.1 micro Liter to 500 micro Liter (col.2, lines 45-48) such that upon conversion to grams per hour, the reference delivery rate range values were found to fall within the recited delivery range values. The Coffee (877) reference teaches that a glycol component present at 20 weight percent (col.9, line 63) but fails to provide weight percent as recited in claim 9 for the alcohol component and the conductivity control component. The Schroeder reference uses triethylene glycol (example 2). The Rabe reference teaches adding an amount from 2 weight percent to 90 weight percent of ethanol (col.5, lines 14-16 and line 49). The Bloch reference teaches that the weight percent range for perfume is from 0.25 weight percent to 30 weight percent (col.1, lines 61-62). As a result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the composition of the Coffee (877) reference to include triethylene glycol because of its ability to readily generate an aerosol suspension in the air at safe temperatures for small consumer applications



Art Unit: 1744

(col.1, lines 62-66) and to include ethanol component in an amount between 2 to 90 weight percent since ethanol is a solvent used for concentration makeup and to increase the amount of perfume present in order to release the perfume with a sufficient level so as to be considered satisfactory air freshener.

With respect to claim 22, the Coffee (877) reference teaches a substantially non-aqueous electrostatically dispensable (20, 23 and 24) disinfectant composition (col.9, lines 62-63) that includes a glycol component with intrinsic initial viscosity and initial conductivity, an alcohol component and a conductivity component (col.4, lines 49-50) having a resistivity range, that falls within the range for the conductivity recited (see explanation with respect to claim 3). Further, the Coffee (877) reference discloses a delivery rate range from 0.1 micro Liter to 500 micro Liter (col.2, lines 45-48) such that upon conversion to grams per hour, the reference delivery rate range values were found to fall within the recited delivery range values. The Coffee (877) reference teaches that a glycol component present at 20 weight percent (col.9, line 63) but fails to provide weight percent as recited in claim 22 for triethylene glycol, the alcohol component and the fragrance component. The Schroeder reference uses triethylene glycol at about 10 weight percent (example 2). The Rabe reference teaches adding an amount from 2 weight percent to 90 weight percent of ethanol (col.5, lines 14-16 and line 49). The Bloch reference teaches that the weight percent range for perfume is from 0.25 weight percent to 30 weight percent (col.1, lines 61-62). As a result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the composition of the Coffee (877) reference to include to include triethylene

glycol at about 10 weight percent for generating lower number of particles compared to dipropylene glycol at 90 weight percent in example 1 and to include ethanol component in an amount between 2 to 90 weight percent since ethanol is a solvent used for concentration makeup and to increase the amount of perfume present in order to release the perfume with a sufficient level so as to be considered satisfactory air freshener.

With respect to claim 10, the Coffee (877) reference teaches including ethanol and polyethylene glycol in the composition (col.9, lines 62-63). In addition, the Coffee (877) reference discloses a viscosity range of 1 to 500 centipoise (col.4, lines 30-31) for the composition. However, the Coffee (877) reference fails to specifically teach using triethylene glycol. The Schroeder reference discloses the use of triethylene glycol (example 2). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Coffee (877) reference by substituting polyethylene glycol for triethylene glycol since it is one of the preferred glycol materials named by the Schroeder reference (col.1, lines 66-67) for its ability to readily generate particles, which form an aerosol suspension in the air at temperatures, which can safely be used in a small consumer appliance (col.1, lines 62-66).

With respect to claim 23, the Coffee (877) reference teaches a composition that includes ethanol (col.9, line 62) and fragrance (col.4, lines 49-50). Further, the Coffee (877) reference discloses a delivery rate range from 0.1 micro Liter to 500 micro Liter (col.2, lines 45-48) such that upon conversion to grams per hour, the reference delivery rate range values were found to fall within the recited delivery range values. For

example, 0.1 micro liter/second in the Coffee (887) reference is equivalent to 0.009 g/hour ( $0.1 \text{ g/hr} = 50945 \times 10^{-9}$ ); 500 micro liter/second in the Coffee (887) reference is equivalent to 1.8 g/hour ( $0.03 \text{ ml/sec} = 0.000066058 \text{ lb/sec} = 109 \text{ g/hr} = 108 \text{ g/hr}$ ).

With respect to claim 24, the coffee (877) reference discloses a composition that includes polyethylene glycol, ethanol and fragrance, but fails to teach the following: the use of triethylene glycol, ethanol at about 56 weight percent and fragrance at about 30 weight percent; however, the Schroeder reference uses triethylene glycol in weight percent range from 5% to 100% (col.2, lines 15-19) because of its ability to readily generate an aerosol suspension in the air at safe temperatures for small consumer applications (col.1, lines 62-66), the Rabe reference teaches adding an amount from 2 weight percent to 90 weight percent of ethanol (col.5, lines 14-16 and line 49) such a modification is a matter of routine experimentation and the Bloch reference teaches that the weight percent range for perfume is from 0.25 weight percent to 30 weight percent (col.1, lines 61-62) such that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the composition of the Coffee (877) reference by increasing the amount of perfume present in order to release the perfume with a sufficient level so as to be considered satisfactory air freshener as taught by the Bloch reference (col.3, lines 50-52).

**10.** Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coffee (U.S.P.N. 6,105,877) in view of Schroeder et al (U.S.P.N. 5,591,395), Rabe et al (U.S.P.N. 6,531,142) and Bloch (U.S.P.N. 4,071,616) as applied to claim 9 and further in view of Peltier (U.S.P.N. 5,382,410).

With respect to claim 11-12, the Coffee (877) reference, the Schroeder reference, the Rabe reference and the Bloch reference all fail to teach the use of essential oils. However, with respect to claims 11-12, the Peltier reference, which is in the art of electrostatically generating aerosols, teaches the use of essential oils (col.1, lines 45-48). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the composition of the Coffee (877) reference by substituting perfumes for essential oils since essential oils are known for odorizing air as taught by the Peltier reference (col.10, lines 42-45).

**11.** Claim 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coffee (U.S.P.N. 6,880,554) view of Schroeder et al (U.S.P.N. 5,591,395).

With respect to claim 18, the Coffee (554) reference teaches a method of using a glycol to reduce airborne microbial levels (col.3, lines 16-17, the use of biocide at some level would reduce airborne microbial levels regardless of the intended use) that includes the following: providing an electrostatically dispensable composition (figure 1) including a glycol component (col.7, lines 64-65), charging element for charging the composition (figure 1:9) including only one electrode (figure 1:7) connected to a voltage source (figure 1:5) and a dispenser (figure 1:100) for dispensing the charged composition at a rate (col.1, lines 66-67 and col.2, lines 1-4). However, the Coffee (554) reference fails to teach effecting a 3-log reduction in airborne microbial levels. The Schroeder reference teaches that the composition causes a reduction of 3-log in the airborne microbial levels (Examples 1-2). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Coffee

Art Unit: 1744

(554) reference by choosing triethylene glycol since it causes a substantial reduction in the amount of airborne bacteria present as taught by the Schroeder reference (col.4, lines 10-17).

With respect to claim 19, the Coffee (554) reference teaches the use of polyethylene glycol (col.7, lines 64-65), but fails to teach incorporating other types of glycols; however, the Schroeder reference teaches using triethylene glycol (example 2). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Coffee (554) reference by substituting triethylene glycol for polyethylene glycol since it causes a substantial reduction in the amount of airborne bacteria present as taught by the Schroeder reference (col.4, lines 10-17).

With respect to claim 20, the Coffee (554) reference discloses a delivery rate range from 0.1 micro Liter to 500 micro Liter (col.1, lines 66-67 and col.2, lines 1-4) such that upon conversion to grams per hour, the reference delivery rate range values were found to fall within the recited delivery range values. In addition, the Coffee (554) reference teaches a composition that includes polyethylene glycol, but fails to teach the use of triethylene glycol; however, the Schroeder reference teaches using triethylene glycol (example 2). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Coffee (554) reference by substituting polyethylene glycol for triethylene glycol since it is one of the preferred glycol materials named by the Schroeder reference (col.1, lines 66-67) for its ability to readily generate particles, which form an aerosol suspension in the air at temperatures, which can safely be used in a small consumer appliance (col.1, lines 62-66).

With respect to claim 21, the Coffee (554) reference discloses the use of a polyethylene glycol (col.7, lines 64-65) that includes fragrance, i.e., a conductivity control component (col.3, lines 51-52) and for providing a conductivity of about 0.01 microsiemens per centimeter to about 1.0 microsiemens per centimeter as have previously been explained regarding claims 3 and 17.

**12.** Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coffee (U.S.P.N. 6,880,554) as applied to claims 13 and 15 respectively and further in view of Schroeder et al (U.S.P.N. 5,591,395).

With respect to claim 14, the Coffee (554) reference discloses a rate (col.1, lines 66-67 and col.2, lines 1-4) for dispensing the charged composition, but fails to disclose a 3-log reduction in air borne microbial levels. The Schroeder reference teaches that the composition causes a reduction of 3-log in the airborne microbial levels (Examples 1-2). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Coffee (554) reference by choosing triethylene glycol since it causes a substantial reduction in the amount of airborne bacteria present as taught by the Schroeder reference (col.4, lines 10-17).

With respect to claim 16, the Coffee (554) reference discloses a delivery rate range from 0.1 micro Liter to 500 micro Liter (col.1, lines 66-67 and col.2, lines 1-4) such that upon conversion to grams per hour, the reference delivery rate range values were found to fall within the recited delivery range values. In addition, the Coffee (554) reference teaches a composition that includes polyethylene glycol, but fails to teach the use of triethylene glycol; however, the Schroeder reference teaches using triethylene

glycol (example 2). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Coffee (554) reference by substituting polyethylene glycol for triethylene glycol since it is one of the preferred glycol materials named by the Schroeder reference (col.1, lines 66-67) for its ability to readily generate particles, which form an aerosol suspension in the air at temperatures, which can safely be used in a small consumer appliance (col.1, lines 62-66).

### ***Response to Arguments***

13. Applicant's arguments filed 07/12/2005 have been fully considered but they are not persuasive.

The new Coffee (554) reference is applied in response to amended claims 13 and 18 for teaching the use of only one dispenser as explained above.

On page 10 of the Remarks section, applicant argues that, "Applicant notes that perfumes and/or aromas are neither provided for use as conductivity control component nor described as conductivity control components." The examiner disagrees. In col.4, lines 30-33, the Coffee (877) reference places a constraint on any liquid to be dispersed by the device including fragrances by including certain resistivity and viscosity values. The specification on pages 4-5 provides examples of fragrances and teaches that such fragrances are not limited to the provided examples. Further, the specification on pages 4-5 teaches that any fragrance present between 10 weight percent to 90 weight percent provides the proper conductivity and is considered a conductivity control component. Since the Coffee (877) reference teaches using fragrance (col.4, lines 49-50) with resistivity and conductivity values that falls within the recited values in the instant

claims, then the fragrance in the Coffee reference is equivalent to a conductivity control component. Note that the Coffee (554) reference places the same resistivity and viscosity values (col.3, lines 34-36), as does the Coffee (877) reference.

On page 10 of the Remarks section, applicant argues that, "inclusion of at least one of a silicon oil, an essential oil and a fatty acid ester is not contemplated, much less enabled by the Coffee reference." The examiner disagrees since the Coffee (887) does teach that perfumes (conductivity control component) can be included in the composition (col.4, lines 49-50). The fact that the Coffee (887) reference provides one embodiment as mentioned in col.9, lines 61-63 does not teach the preclusion of other embodiments that include perfumes.

On page 12 of the Remarks section, applicant argues that, "Thus, after reading a Schroeder, one skilled in the art would not substitute a triethylene glycol component in the solution disclosed in Coffee, which contains 80% ethanol, a volatile component in an amount that significantly exceeds the amount required or taught by Schroeder." The examiner disagrees. First, the coffee reference provides more than one compositional embodiment (see col.5, lines 6-13) where two components are dispensed and one of them is water and is not limited to one embodiment as mentioned in column 9, lines 61-63. The Schroeder reference is combined to show that the use of triethylene glycol is known in the art of air disinfection and not whether the triethylene glycol can be or cannot be combined with alcohols. Further, the Schroeder reference provides specific benefit for using triethylene glycol (see col.1, lines 62-66) and the teaching for combining glycols with alcohols is already taught in Coffee reference.



On page 12 of the Remarks section, applicant argues that, "Schroeder does not teach that a solution containing triethylene glycol in combination with about 15% or more alcohol can readily generate particles which form an aerosol suspension in the air at temperatures that can safely be used in an electrostatic dispensing consumer appliance." The Schroeder reference is combined to show that the use of triethylene glycol is known in the art of air disinfection and not for concentration ranges for alcohols, which is provided by the Rabe reference. The Rabe reference is in the art of electrostatic dispensing of treatment compositions.

On page 13 of the Remarks section, applicant argues that, "Again, Schroeder teaches away from inclusion of perfume or other volatile components, but states that when included, the perfume component should be less than 15% of the total formulation." Again, the Schroeder reference is combined to show that the use of triethylene glycol is known in the art of air disinfection and not for concentration ranges for perfumes, which is provided by the Bloch reference.

On page 13 of the Remarks section, applicant argues that, "Coffee does not provide motivation or suggestion to modify the composition of the Coffee reference to include triethylene glycol or a perfume components in amounts disclosed in Schroeder." The examiner disagrees since as mentioned above, the Schroeder reference is combined to show that the use of triethylene glycol is known in the art of air disinfection and not for concentration ranges for perfumes, which is provided by the Bloch reference. With respect to the use of triethylene glycol, the Coffee reference provides an example of using one kind of glycol components, for example, polyethylene glycol, such

that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the composition of the Coffee (877) reference to include triethylene glycol because of its ability to readily generate an aerosol suspension in the air at safe temperatures for small consumer applications (col.1, lines 62-66) as taught by the Schroeder reference.

On page 14 of the Remarks section, applicant argues that, "Applicant asserts that this obvious-to-try rationale is an improper standard upon which to base an obviousness rejection." The examiner disagrees. The Coffee reference teaches using polyethylene glycol and the Schroeder reference provides specific benefit for including triethylene glycol because of its ability to readily generate an aerosol suspension in the air at safe temperatures for small consumer applications (col.1, lines 62-66). In addition, both the Coffee reference and the Schroeder reference are in the art of disinfecting air.

On page 15 of the Remarks section, applicant argues that, "Applicant asserts that Rabe teaches only electrostatically deliverable compositions that do not deviate from the composition described, including the specific constituents present in their defined weight percent ranges." The examiner disagrees, since the Rabe reference is combined for its ethanol concentration range and not for other components in its composition. Further, the Rabe reference teaches that optional components depending on the choice of artisan can be included in the composition (see col.8, lines 51-67 and columns 9-12. Clearly, the Rabe reference discloses various types of compositional embodiments and is not limited to one embodiment. In addition, whether the Rabe

reference teaches other components in the composition is irrelevant to combining the Rabe reference with the Coffee reference.

On page 16 of the Remarks section, applicant argues that, "Release of perfume from a solid gel involves an entirely different mechanism than the release of constituents by the devices described by Coffee, Schroeder and Rabe." All the references including the Bloch reference are in the art of air treatment and it would have been obvious to one having ordinary skill in the art at the time invention was made to increase the amount of perfume present in order to release the perfume with a sufficient level so as to be considered satisfactory air freshener as taught by the Bloch reference (col.3, lines 50-52).

### ***Conclusion***

**14.** Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


**15.** A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

**16.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R. CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 6:30-3:00.

**17.** If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN KIM can be reached on (571) 272-1142. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

**18.** Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Monzer R. Chorbaji   
Patent Examiner  
AU 1744  
09/20/2005

  
**JOHN KIM**  
**SUPERVISORY PATENT EXAMINER**